CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 84-30

NPDES NO. CA0037869

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY DISCHARGERS AUTHORITY
CITY OF HAYWARD
CITY OF SAN LEANDRO
ORO LOMA SANITARY DISTRICT &
CASTRO VALLEY SANITARY DISTRICT
UNION SANITARY DISTRICT

-AND-

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
CITY OF LIVERMORE
DUBLIN-SAN RAMON SERVICES DISTRICT
CITY OF PLEASANTON

ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The East Bay Dischargers Authority (EBDA), by application dated February 21, 1984, on behalf of itself and its member agencies above, has submitted a report of waste discharge for reissuance of NPDES Permit No. CA0037869 to discharge combined wastes through a common outfall under the National Pollutant Discharge Elimination System (NPDES).

2. The Livermore-Amador Valley Water Management Agency (LAVWMA) member agencies have also applied for waste discharge requirements and renewal of NPDES Permits to discharge wastes through the EBDA outfall. EBDA, LAVWMA, and their member agencies are hereinafter collectively and individually referred to as dischargers. These waste discharge requirements are primarily for regulation of EBDA and its member agencies and the operation of the EBDA joint outfall facilities. Seperate effluent waste discharge requirements have been adopted by the Board for the City of Livermore (Order No. 84-32, NPDES No. CA0038008) and Dublin San Ramon Services District (Order No. 84-31, NPDES No. CA0037613).

3. Both EBDA and LAVWMA are Joint Exercise of Powers Agencies which exist under Joint Exercise of Powers Agreements (JEPA) to operate treated wastewater transport and disposal facilities. LAVWMA will transport effluent from its member agencies to the EBDA system in its transmission, flow-equalization, chlorination, and pumping facilities. By contractural agreement, EBDA will transport LAVWMA treated wastewater jointly with the treated wastewater from its member agencies to its dechlorination station near the San Leandro Marina (Marina Dechlorination Facility) and thence to its deepwater outfall in Lower San Francisco Bay west of the Oakland

Airport at longitude 122° 18' west, latitude 37° 42' north. The outfall's diffuser is located 30,000 feet from shore; it discharges 23.5 feet below the surface (at MLLW); and it is designed to provide minimum initial dilution of greater than 10:1 at all times, and about 45:1 for 50% of the time. A map showing the facilities is appended at ATTACHMENT A, hereinafter a part of this Order.

4. All the EBDA member agencies currently operate, and will continue to operate, their own collection and treatment facilities, except that Castro Valley S.D. contracts with Oro Loma S. D. for treatment.

5. The reports of waste discharge describe the existing and proposed waste discharges to waters of the state and United States as follows:

AGENCY	1983 Avg Dry Weather MGD	Exist'g Design Avg Dry Weather MGD	Proposed Design Avg Dry Weather MGD (2)	Design Peak Wet Weather MGD (5)
EBDA				
San Leandro	4.9	7.60	7.60	22.3
Oro Loma/Castro Valley	13.7	20.00	20.00	69.2
Hayward (3)	11.2	13.10	13.10	35.0
Union Sanitary District (2)	18.7	19.70	30.00	42.9
Total - EBDA	48.5	60.40	70.72	169.4
LAVWMA (1)				
Dublin San Ramon Services District City of Pleasanton	6.74	9.00	11.00	18.61
City of Livermore	3.80	6.25	6.25	11.4
Total - LAVWMA	10.54	15.25	17.25	19.72
EBDA Outfall Grand Total (3)	59.0	75.65	87.97	189.1

NOTES:
(1) LAVWMA, Livermore, and DSRSD are expected to increase treatment and disposal capacity in the next three years. However the purchased capacity by LAVWMA in the EBDA system is expected to remain the same as shown.
(2) Proposed Design Average Dry Weather Flow for Union Sanitary is documented on the Permit application and in other reports. Expected treatment facility operational at 30 mgd by July 1987.
(3) Rated treatment capacity upon completion of secondary treatment facilities in August 1985. Current flows are less than proposed design average dry weather flows.
(4) Portions of the treated effluent from the EBDA system and City of Livermore facilities are intermittently used for reclamation and marsh creation and are regulated by other waste discharge requirements adopted by the Board.
(5) Sum does not equal individual flows due to timing of peaks.

6. The discharge is presently governed by Waste Discharge Requirements (NPDES Permit), Order No. 79-68, as amended by Order No. 80-51, which allows discharge into Lower San Francisco Bay.

7. EBDA's JEPA delegates the authority and responsibility to EBDA to assure compliance with all effluent waste discharge requirements. It is the intent of the EBDA JEPA to allow determination of compliance with waste discharge requirements by considering EBDA as a total system, to permit the most effective operation of all EBDA and member agency treatment facilities. The EBDA JEPA, therefore empowers that Joint Agency to monitror each member agency's discharge and the combined discharge and prescribes that the Joint Agency may, if necessary, undertake modifications of any member agency's treatment facilities to secure compliance with effluent discharge requirements.

   Since LAVWMA and its tributary agencies are not signatories to the EBDA JEPA, the EBDA-LAVWMA agreement empowers EBDA to monitor discharges by LAVWMA into the EBDA system and requires LAVWMA, as a condition of continuing service, to comply with all requirements prescribed by the Regional Board, except residual chlorine, for which EBDA will be responsible.

   The LAVWMA JEPA limits that Joint Agency to providing and operating the transport (and auxiliary) facilities from its member agencies' treatment plants to EBDA. LAVWMA is not empowered to take actions to secure member agency compliance with requirements.

8. As used herein, "Common Outfall" means the EBDA outfall; "Combined Discharge" refers to the waste stream at any point where all wastes tributary to that outfall are present; and "Individual Treatment Plant" means a treatment facility operated by a member agency or either EBDA or LAVWMA.

9. All EBDA member agencies have an approved EPA Local Pretreatment Program for source control and application of pretreatment standards. The Basin Plan allows exceptions to certain conservative toxicants where an acceptable effective source control program has been established and the discharge of conservative toxicants has been reduced to the maximum extent feasible. EBDA has requested on behalf of its member agencies an exception to the Basin Plan limits for chromium. The EBDA member agency Local Pretreatment Programs are acceptable but their effectiveness has not been audited by the Board nor have the dischargers documented reduction of conservative toxicants to the maximum extent fesible at this time. The Board intends to review this situation further prior to granting exceptions to the Basin Plan limits.

10. By letter of June 21, 1978, Hayward requested an NPDES Permit time extension for construction of required facilities, in response to notifications by this Board. This request was pursuant to Section 301(i)(1) of the Federal Water Pollution Control Act (now Clean Water Act) as amended. Further information from Hayward indicates that they have acted in good faith, the delays are beyond their control, full compliance with all requirements will be achieved in the shortest reasonable time, and the respective waste treatment facilities will operate at optimum conditions in the interim prior to achieving full compliance with the effluent requirements of this Order. Past experience indicates that secondary requirements are normally met most of the time despite Hayward's facilities not being completed until August 1985. The Board finds the request warranted and grants the time extension for compliance with Section 301(b) pursuant to Section 301(i) of the Act.

11. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Lower San Francisco Bay and contiguous waters.

12. The existing and potential beneficial uses of Lower San Francisco Bay and contigous water bodies are:

- o Water contact and Non-contact water recreation
- o Wildlife Habitat
- o Preservation of Rare and Endangered Species
- o Estuarine Habitat
- o Fish migration and spawning
- o Industrial service and process supply
- o Shellfish Harvesting
- o Navigation
- o Commercial and Sport Fishing

13. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.

14. This Order serves as an NPDES Permit, adoption of which is exempt from the provision of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

15. The discharger and interested agencies and persons have been notified of the Board's intent to reissue waste discharge requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger(s) in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act, as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. <u>Discharge Prohibitions</u>

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant(s) or from any of the joint facilities or individual member collection system(s) and pump stations tributary to the treatment plant is prohibited.

2. The average dry weather flow shall not exceed the existing design average dry weather flows as specified in Finding No. 5 of this Order. Actual average dry weather flow shall be determined for compliance with this prohibition over three consecutive dry weather months each year.

   Exceptions to the existing design average dry weather flows in Finding No. 5 up to the maximum of the proposed design average dry weather flows for the EBDA system only may be approved by the Executive Officer upon submittal of a satisfactory technical report demonstrating that compliance with effluent limits at the EBDA outfall will be consistently achieved and that the EBDA commission approves the change. In no instance will the Executive Officer approve design average dry weather flow changes such that the total proposed design average dry weather flow for EBDA is exceeded. The intent of this exception procedure is to consider EBDA as a total system to allow EBDA and its member agencies to operate in the most efficient manner in complying with these waste discharge requirements.

3. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits, provided that prior to achieving compliance with all effluent limitations specified below, the interim limitations shown below in Effluent Limitaion 7. shall apply, in accordance with the time schedule shown. Compliance with effluent limitations denoted by "*" shall be demonstrated in the combined discharge, except that EBDA may elect to demonstrate compliance with requirements denoted by "*" in the discharge from individual member agency treatment plants after prior approval of the Executive Officer. Demonstration of compliance for removal rates will be based upon the algebraic summing of the EBDA agency loadings.

Constituents	Units	30-day Average	7-day Average	Maximum Daily	Instantaneous Maximum
a.*Settleable Matter	ml/l-hr	0.1	-	-	0.2
b.*BOD or	mg/l	30	45	-	-
*Carbonaceous BOD(1)	mg/l	25	40	-	-
c.*Total Suspended Solids	mg/l	30	45	-	-
d.*Oil & Grease	mg/l	10	-	20	-
e.*Total Chlorine Residual (2)	mg/l	-	-	-	0.0

Notes: (1)Effective upon its promulgation in a new secondary treatment definition by EPA.

Notes (cont.) (2) Requirement defined as below the limit of detection by standard methods. The discharge of individual discharger's effluents to LAVWMA or EBDA facilities may exceed 0.0 mg/l for chlorine residual, however the chlorine residual of the combined discharge from the EBDA common outfall shall not exceed 0.0 mg/l.

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2. The arithmetic mean of the biochemical oxygen demand (5-day, 20C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected approximately the same times during the same period (i.e. 85 percent removal).

3.*. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

4.* The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the the ten most recent consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits (1):

Constituent	Unit of Measurement	6 Month Median	Daily Maximum
a. Arsenic	mg/l	0.01	0.02
b. Cadmium	mg/l	0.02	0.03
c. Total Chromium	mg/l	0.005	0.01
d. Copper	mg/l	0.2	0.3
e. Lead	mg/l	0.1	0.2
f. Mercury	mg/l	0.001	0.002
g. Nickel	mg/l	0.1	0.2
h. Silver	mg/l	0.02	0.04
i. Zinc	mg/l	0.3	0.5
j. Cyanide	mg/l	0.1	0.2
k. Phenolic Compounds	mg/l	0.5	1.0
l. Total Identifiable Chlorinated Hydrocarbons(2)	mg/l	0.002	0.004

Notes (for Effluent Limitation B.5.):

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards by each EBDA member.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls (PCBs), and other identifiable chlorinated hydrocarbons.

6.* The median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 millimeters. Any single sample shall not exceed 10,000 MPN/100 ml.

7. Prior to achieving compliance with the Effluent Limitations of this Order, the following interim effluent limits shall apply to the individual EBDA member agencies as shown below:

Effluent Limitation B.5.c. - Total Chromium:

Agency / Discharger	Six Month Median mg/l	Daily Maximum mg/l
City of San Leandro	0.025	0.10
Oro Loma Sanitary District	0.005	0.02
City of Hayward	0.02	0.08
Union Sanitary District	0.01	0.04

Effluent Limitation B.1.b - BOD or Carbonaceous BOD
B.1.c - Total Suspended Solids

Agency / Discharger	Max. BOD mg/l	Max. TSS mg/l
City of Hayward	36	75

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of wasteshall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. Dissolved oxygen — 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentrtion(s) than

		those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved Sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized Ammonia	0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order Nos. 79-68 and 80-51. Order Nos. 79-68 and 80-51 are hereby rescinded except for Provision D.1. of Order 79-68:

"...
D. Provisions
1. Neither the collection, treatment, storage, transmission, or discharge facilities shall create a nuisance as defined in the California Water Code.
..."

which remains in effect for purposes of enforcement under Board Order No. 84-17. Provision D.1. of Order No. 79-68 will be automatically rescinded upon the rescission of enforcement order No. 84-17.

2. Where concentration limitations in mg/l are contgained in this permit, the following mass emission limitations shall also apply:

Mass Emission Limit in lbs/day = Concentration limit in mg/l x 8.34 x Actual Flow in mgd over the time interval for which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision D.4. below.

4. The discharger shall comply with Effluent Limit B.1.b. (BOD/CBOD) and B.1.c. (TSS) for Hayward and Effluent Limit B.5.c. (Total Chromium) according to the following schedule:

a. Effluent Limits B.1.b. (BOD/CBOD) and B.1.c. (TSS) for Hayward:

Task	Completion Date	Report of Compliance Due
1) Status Report		November 1, 1984
2) Complete Construction	February 9, 1985	February 23, 1985
3) Operational Compliance	August 9, 1985	August 23, 1985

b. Effluent Limits B.5.c. (Total Chromium) for all EBDA members:

Task	Report of Compliance Due
1)Submit outline of Plan/Program to document reduction of conservative toxicants to the maximum extent possible	Oct. 1, 1984
2)Status reports	Jan 31, 1985
Task	Report of Compliance Due
3)Submit report demonstrating reduction of conservative toxicants to the maximum extent feasible.	Jan 31, 1986

c. Note: The discharger shall submit to the Board, on or before each compliance report date, a report detailing his compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when he has returned to compliance with the time schedule.

5. The discharger shall review and update his Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year. A time schedule for completion of the initial revision shall be submitted by June 1, 1984. Documentation of operator input and review shall accompany each annual update.

6. The discharger shall review and update by October 1, 1984 and annually thereafter its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

7. The discharger shall implement its approved Industrial Pretreatment Program in accordance with legal authorities, policies, and procedures described in its pretreatment document and in accordance with the federal Clean Water Act, Section 402(b)(8) and (9) and federal pretreatment regulations 40 CFR 403.

a. The permittee shall maintain an adequate revenue program and enforce prohibitions of any applicable National Pretreatment Standards established by the U.S. Environmental Protection Agency (EPA).

b. The discharger shall provide EPA and the Board with an annual report from each member agency describing the pretreatment program activities over the previous 12-month period. The period should be transmitted to EPA and the Regional Board no later than January 31 and include:

1) A summary of actions taken by the discharger which ensured industrial user compliance;

2) An updated list of industrial users (by SIC categories) which were issued permits, enforcement orders, and status of compliance for each user; and

3) The name and address of each user that received revised discharge limits.

8. This Board considers EBDA to be the agency primarily responsible for the combined waste discharge and the discharge of its member agencies to the common outfall. Therefore, in the administration and enforcement of this Order, this Board will first pursue its administrative and/or legal remedies with EBDA. If, however, the Board finds that EBDA does not have the ability or willingness to take appropriate action, or if special, unusual circumstances arise that indicate that direct action should be taken against a member agency or agencies, this Board may pursue appropriate action against such member agency or agencies.

9. The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

10. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 with the exception of Provision A.12. and Reporting Requirements B.2 and B.3.

Item C.2 of the Standard Provisions shall read as follows:
"The '30-day, or 7-day, average' discharge is the total discharge by weight during a 30, or 7, consecutive calendary day period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day, or 7-day, average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the 30, or 7 day, consecutive calendar day period when the measurements were made. For other then 7-day or 30-day periods, compliance shall be based upon the average of all measurements made during the specified period."Item

11. This Order expires June 19, 1989. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

12. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 16, 1984.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions &
Reporting Requirements, April 1977
Self-Monitoring Program
Resolution No. 74-10
Attachment A - Location Map of EBDA Member Agencies and Facilites.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AMENDED
SELF-MONITORING PROGRAM
FOR

EAST BAY DISCHARGERS AUTHORITY
CITY OF HAYWARD
CITY OF SAN LEANDRO
ORO LOMA SANITARY DISTRICT
CASTRO VALLEY SANITARY DISTRICT
UNION SANITARY DISTRICT

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY*
CITY OF LIVERMORE*
DUBLIN SAN RAMON SERVICES DISTRICT*

NPDES NO. CA 0037869

ORDER NO. 84-30

CONSISTING OF

PART A, DATED JANUARY 1978

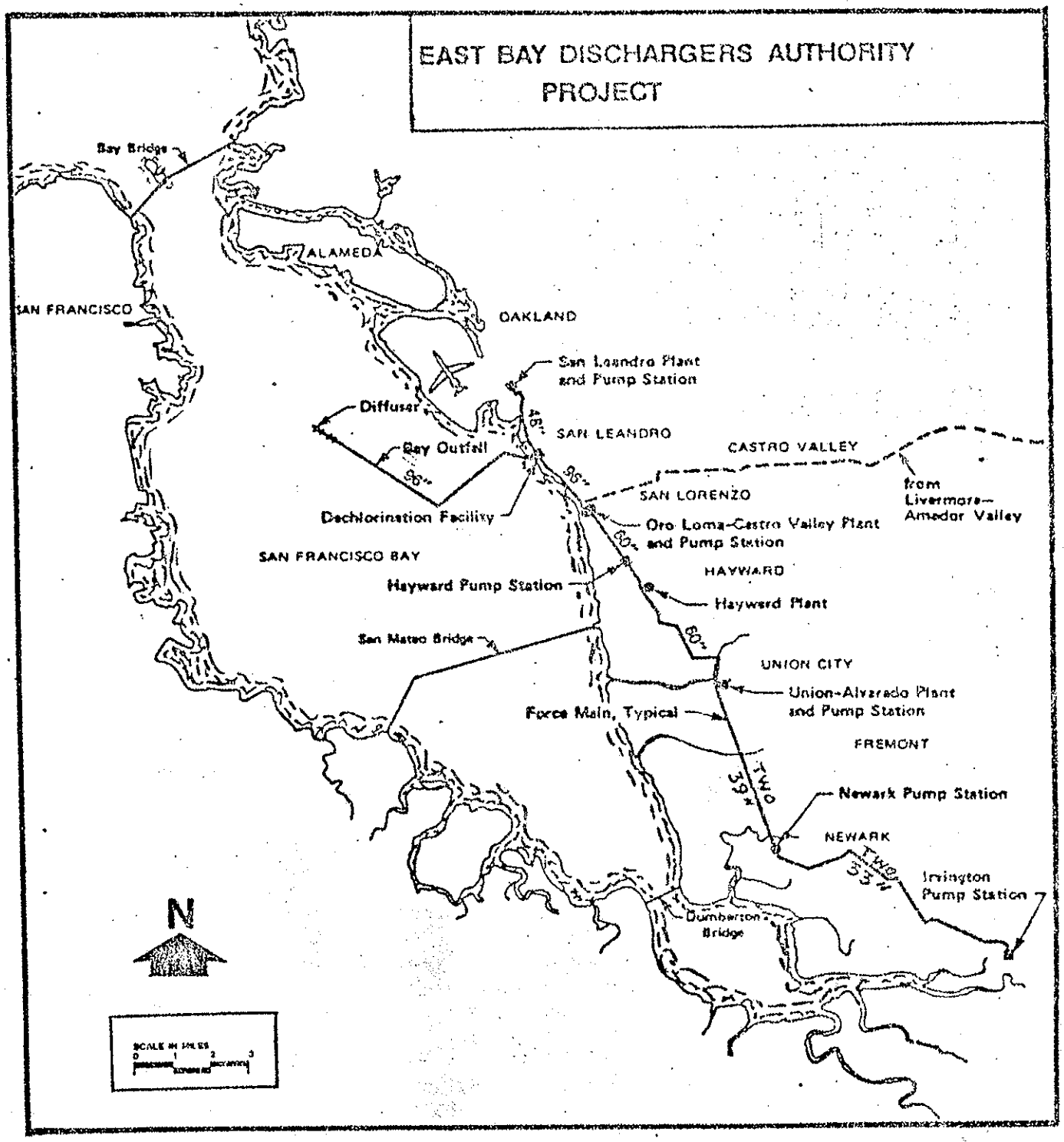
AND

PART B, ORDERED NOV. 14, 1980
REVISED JUNE 20, 1984

AND

BOTTOM SEDIMENT SAMPLING AND
REPORTING GUIDELINES (SEPT. 1974)

*Note: Receiving Water Sampling Only.



ATTACHMENT A

PART B

1. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT (ALL EBDA TREATMENT PLANTS)

Station	Description
A-1	At any point in the individual treatment facilities headworks at thich all waste tributary to the system is present and preceding any phase of treatment or sidestream.

B. EFFLUENT (ALL EBDA TREATMENT PLANTS AND OUTFALL)

Station	Description
E-001	At any point in the EBDA common outfall at which all waste tributary to that outfall is present.
E-002	At any point in the individual treatment plant facilities at which adequate disinfection has taken place and just prior to where the individual facility has lost control of its effluent to EBDA facilities. Upon approval of the Executive Officer may be the same as E-001.

C. RECEIVING WATERS (SAN FRANCISCO BAY)

Station	Description
C1, C2, C4	Located per station 1, 2, and 4 respectively as shown on Figure 1.
C-R (C3)	Reference station located at station 3 as shown on Figure 1.

D. LAND OBSERVATIONS (ALL EBDA TREATMENT PLANTS AND DECHLORINATION FACILITY

Station	Description
P-1 through P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the individual and EBDA facilities. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES (ALL EBDA TREATMENT PLANTS, COLLECTION SYSTEMS, INTERCEPTOR AND OUTFALL.

Station	Description
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations, interceptor, or collection system.

E. BOTTOM SEDIMENTS

Station	Description
B1, B7, B10, B12, B14	Located as shown on Figure 2.

G. ATTACHED MACROFAUNA

Station	Description
S-1 thru S-'n'	Attached Macrofauna stations based upon a sampling plan approved by the Executive Officer.

H. MISCELLANEOUS REPORTING

Compliance with receiving water and effluent residual chlorine limits shall be demonstrated by EBDA reports.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given as Table I.

III. MODIFICATION OF PART A, DATED JANUARY 1978 (with amendments)

Change Section F.3. reporting date to the 20th of following month (vs. the fifteenth)

Add Section G: Intent / Procedures

"G. Intent/Procedures

1. This Board considers EBDA to be the agency primarily responsible for the combined waste discharge and the discharge of its member agencies to the common outfall. Therefore, in the administration and enforcement of this monitoring program, this Board will first pursue its administrative and/or legal remedies with EBDA. If, however, the Board finds that EBDA does not have the ability or willingness to take appropriate action, or if special, unusual circumstances arise that indicate that direct action should be taken against a member agency or agencies, this Board may pursue appropriate action against such member agency or agencies.

2. It is the intent of the Regional Board to allow EBDA members to demonstrate compliance at the EBDA outfall and to combine monitoring reports to decrease reporting. Upon submission by EBDA of a proprosal satisfactory to the Executive Officer this will be allowed."

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 84-30.

2. Has been ordered by the Regional Board on June 20, 1984.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Attachments:
Table 1
Figures 1 and 2

TABLE I

Revised 5/10/84

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1), (7), (10), (11)

Sampling Station	A	E-001			E-002			All P Sta.	All O Sta.	All C Sta	All B Sta	All S Sta	
TYPE OF SAMPLE	C-24	G(4)	C-24	cont	G(4)	C-24	cont	O	O	G/O(5)	BS	O	
Flow Rate (mgd)	D			D			D						
BOD, 5-day, 20° C. or COD (mg/l & kg/day) (1), (3)	5/W		5/W										
Chlorine Residual & Dosage (mg/l & kg/day) (8)		H or cont			H or cont								
Settleable Matter (ml/l-hr. & cu. ft./day)		D											
Total Suspended Matter (mg/l & kg/day) (1), (3)	5/W		5/W										
Oil & Grease (mg/l & kg/day) (2)		2/M											
Coliform (Total or Fecal) (MPN/100 ml) per req't		3/W								4/Y			
Fish Toxicity, 96-hr. TL_{50} (5), (6)/ % Survival in undiluted waste			M										
Ammonia Nitrogen & unionized ammonia (mg/l & kg/day)			4/M(9)										
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)			M(9)										
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)		D								4/Y			
Dissolved Oxygen (mg/l and % Saturation)										4/Y			
Temperature (°C)		D								4/Y			
Apparent Color (color units)													
Secchi Disc (inches)										4/Y			
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)										4/Y			
Arsenic (mg/l & kg/day)			3M (7)			3M (7)							
Cadmium (mg/l & kg/day)			3M (7)			3M (7)							
Chromium, Total (mg/l & kg/day)			3M (7)			3M (7)							
Copper (mg/l & kg/day)			3M (7)			3M (7)							
Cyanide (mg/l & kg/day)			3M (7)			3M (7)							
Silver (mg/l & kg/day			3M (7)			3M (7)							
Lead (mg/l & kg/day)			3M (7)			3M (7)							

NOTES FOR TABLE 1:

1/ During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency outfall, the monitoring program for the effluent and any nearshore discharge shall include the following in additiong to the above schedule for sampliang, measurement and analyses:

a. Composite sample for BOD and Total Suspended Solids.

b. Grab samples for Total Coliform, Settleable Matter and Oil and Grease.

c. Continuous monitoring of flow.

d. Continuous or every two hour monitoring of chlorine residual.

2/ Oil and Grease sampling shall consist of a grab sample. In the event that sampling for oil and grease every two weeks or less frequently shows an apparent violation of the waste discharge permit, 30-day average limitation (considering the results of one or two day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly so that a true 30-day average can be computed and compliance can be determined.

3/ Percent removal (effluent vs. influent) shall also be reported.

4/ Grab samples shall be taken on day(s) of composite sampling.

5/ Sample date for bioassay and for one of all other specified parameters shall coincide with composite sample(s).

6/ If a continuous bioassay is to be run, sample may be taken from E-001 prior to disinfection instead of dechlorinating E-001 effluent.

7/ If any sample is in violation of limits, sampling shall be increased for that parameter to weekly until compliance is demonstrated in two successive samples.

8/ Data shall be reported using forms provided by the Board or an approved equivalent; chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.

9/ These parameters shall be tested for on the same composite sample used for the bioassay.

10/ Monthly sampling dates and approximate times shall coincide with receiving water monitoring conducted by EBDA.

11/ All flow other than to the outfall (e.g. sludge, etc.) shall also be reported monthly. Daily records shall be kept of the quantity (cu. yds. or cu. ft.) and solids content (%) of dewatered sludge disposed of and the location of disposal.

Notes for Table 1 (cont):

12/ For all months un-ionized ammonia in the receiving water will be calculated as follows in addition to the four annual receiving water measurements for un-ionized ammonia in-situ:

a. measure, average, and submit four analyses monthly of ammonia concentration from 24-hour effluent composite samples of the EBDA effluent.

b. Using Table II attached estimate and report the dilution ratio of the effluent during average monthly flow. During the period December through April, stratification conditions will be assumed (stratification, wet weather, Progressing Delta flow, wet-2/3).

c. Using SERL's tabulation of association factors, calculate the concentration of un-ionized ammonia after dilution.

d. Report results showing all calculations.

TABLE II

SUMMARY - DILUTION AND SUBMERGENCE - BLOCKING INCLUDED

E B D A OUTFALL
DIFFUSER DEPTH = 22.0 FT
PORT SPACING = 8.0 FT
PORT DIAMETER = 2.50 IN
PORTS BACK TO BACK ON TWO SIDES OF DIFFUSER (DIAMETER = 4.000 FT)
DIFFUSER LENGTH= 2008. FT
WASTE SIGMAT = -1.00
DISCHARGE ANGLE= 0.0 DEG

	185. MGD		150. MGD		125. MGD		75. MGD		40. MGD		17. MGD	
UA(KNOT) PROFILE WIDTH(FT)	D/H	S	D/H	S	D/H	S	D/H	S	D/H	S	D/H	S
0.40	13	46	12	45	12	43	13.	41	12.	42	12.	51
WET-1/3	6	28	5	29	4	29	2	29	2	34	1	40
2008.	7*	25	6	24	6	24	4	24	3	28	2	31
0.40	20.	29	20.	27	20.	24	19.	19	18.	17	18.	17
WET-2/3	1	15	2	14	2	13	1	14	1	14	0	15
2008.	1*	15	2*	14	2*	13	2*	10	2	11	1	12
0.40	17	38	17.	34	17.	33	16.	29	15.	28	15.	32
WET-LINEAR	3	20	3	18	3	20	2	22	1	24	1	28
2008.	3*	20	3*	18	4*	17	4	16	3	18	2	21
0.40	13	43	12	43	12	43	11	43	10	47	11.	56
TRANS-LIN	6	28	5	31	4	31	3	34	2	40	1	47
2008.	6*	28	7*	25	7*	23	6	24	5	29	3	33
0.40	0	72	0	76	0	80	0.	94	0.	118	0.	185
UNIFORM 22.5	11	51	9	53	8	56	6	67	4	91	3	151
2008.	12	47	11	49	10	50	8	58	7	74	6	117
0.40	0	71	0	75	0	79	0	94	0.	118	0.	177
UNIFORM19.47	11	50	9	54	8	56	6	67	4	89	3	146
2008.	12	47	11	48	10	50	8	56	7	72	6	112

D/H = DEPTH/THICKNESS OF FIELD. S = ST/SU/SM * AVERAGE DILUTION

The data group enclosed in the box in Table I is read as follows:

0	76
9	53
11	49

0 = depth of the top of the sewage field in feet.
9 = thickness of the sewage field blocked by a perpendicular current.
11 = thickness of the sewage field blocked by a parallel current, or no current.

76 = average dilution at the top of the sewage field = 76:1
53 = average dilution in the sewage field blocked by a perpendicular current = 53:1
49 = average dilution in the sewage field blocked by a parallel or no current = 49:1

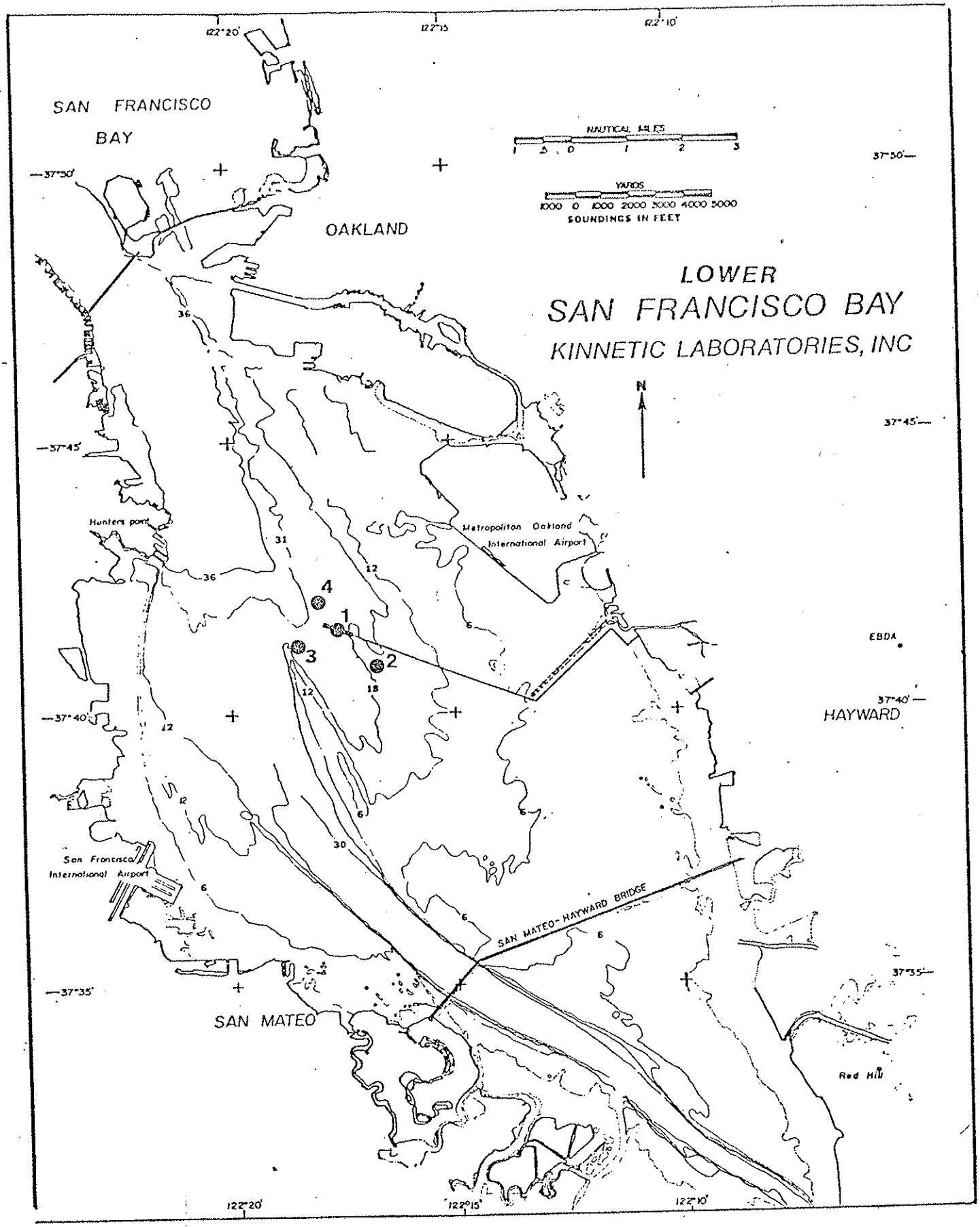
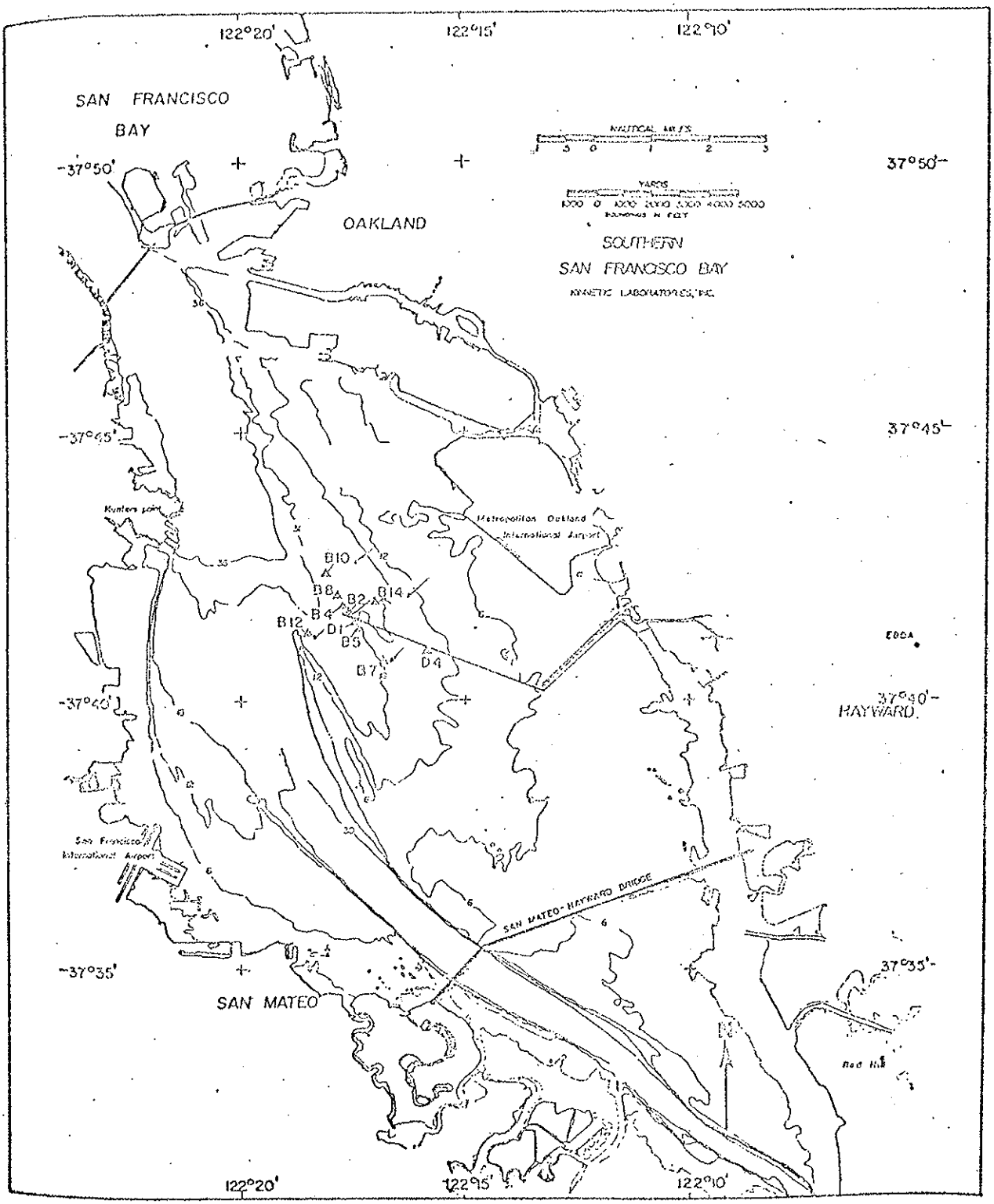


Figure 1. Receiving water stations



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FIGURE 2

BENTHIC SAMPLING STATIONS

DRAWN BY:	DATE: Aug. 70	DRWG. NO.

BOTTOM SEDIMENT SAMPLING AND REPORTING GUIDELINES
SEPTEMBER 1974

For macroinvertebrate samples the following equipment and procedures shall be observed:

1. The benthic grab sampler employed shall be one of the following: Ponar, Peterson, Smith-McIntyre or 12 x 12 Ekman (when all sampling stations are in shallow water and sediment composition is ooze throughout sampling area). A core sampler may be employed if special conditions warrant but approval is necessary from the Regional Board.

2. Each benthic grab (replicate) shall be reasonably uniform; that is, 6 to 8 liters of sediment per grab. In the field, each grab sample shall be screened using a 30 mesh sieve and preserved in 5% formalin. Sediment characteristics shall be recorded for each grab. Pertinent collection data shall be placed on internal and external labels for all grabs preserved.

3. In the laboratory, all grabs preserved in the field shall be transferred into 70% ethanol within a week. When large numbers of organisms are present, subsampling may be employed. The sample should be thoroughly mixed and distributed over a shallow pan. A divider (i.e., equal quarters) is placed in the pan. The aliquot to be used, regardless of the number of organisms, should never be smaller than one-quarter of the grab sample. Generally, it will be necessary to count all of the organisms in no less than three liters of the sediment collected in each grab sample. When subsampling is not employed during the first sampling period of the year, because of the low number of organisms in the benthos, then subsampling should not be conducted in the other sampling periods for that year if at all possible. If very large numbers of organisms are present in future samples, then subsampling may be conducted, but the subsample should never be smaller than one-half of the grab sample. The methodology used should be consistant and should be guided by expert professional judgment. That part of the sample not selected for sorting shall be saved for future reference as well as those specimens sorted. Aliquot sampling, although not the most desirable alternative, is preferable to compositing all grab samples. The subsampling prescribed should provide for some reduced costs to the discharger.

Reporting Procedures for Benthic Macroinvertebrates

All Reports shall include the following:

1. Number of invertebrates per square meter and per liter of sediment of each grab sample and the mean number of invertebrates per square meter and per liter of sediment per station. The actual number of individuals counted in each grab sample and the actual volume of sediment collected in the grab sample shall be listed.

2. Identification of polychaetes, amphipods, and molluscs to species and enumeration of each species for each grab sample.

3. For each station, provide the mean number of individuals per square meter for each discernible species* obtained from the individual grab samples.

4. For each station, provide the range in numbers of indivudals for each discernible species* obtained from the separate grab samples.

5. List total oligochaetes per square meter and per liter of sediment for each grab sample and the mean numbers for each station.

Annual Reports shall include in addition to the above:

1. Discussion of presence or absence and relative abundance of pollutant tolerant and/or intolerant species.

2. Analysis and discussion on impact of discharge on benthic community in vicinity of outfall.

3. Graphical presentation of results should accompany the discussion of (1) and (2) above.

4. Discharger shall be required to submit (2) two copies of the Annual Summary to the Regional Board.

*Discernible species means a species identified or recognized as such in the followling major groups: polychaetes, amphipods and molluscs.